DOCUMENT RESUME

ED 145 225 CE 013 192

TITLE	Operation Resource: Abstracts of Current Curriculum Development Activities in Industrial Arts Teacher Education. 1977 Update.
INSTITUTION	American Council on Industrial Arts Teacher Education, Washington, D.C.
PUB DATE	77
NOTE	65p.; For a related document see ED 126 265 ; Publication made possible by the Undergraduate Studies Committee
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	*Abstracts; *Curriculum Development; Educational Innovation; Elementary Secondary Education; *Industrial Arts; Instructional Materials; Program Descriptions; Program Development; Program Evaluation; *Resource Guides; *Teacher Education; Teaching Methods

ABSTRACT

This 1977 supplemental update of "Operation Resource: Abstracts of Current Curriculum Development Activities in Industrial Arts Teacher Education," (ED 126 265) contains twenty-six two-page abstracts, each including title of activity, department/division, institution/organization, city and state, director(s) of activity, dates initiated and concluded, sponsoring/funding agent, descriptors, purposes/goals/objectives, progress to date, future plans, project publications, and sources of available information. Instructions for incorporating the abstracts and the descriptor index into the original document are included. (BL)

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ED145225

OPERATION RESOURCE:

ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

1977 UPDATE

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UNDERGRADUATE STUDIES COMMITTEE
AMERICAN COUNCIL ON INDUSTRIAL
ARTS TEACHER EDUCATION

CE013192

M E M O R A N D U M

TO: Subscriber's To Operation Resource Manual

FROM: Undergraduate Studies Committee, A.C.I.A.T.E.

SUBJECT: Use of 1977 Update

DATE: April, 1977

The enclosed 1977 update of your Operation Resource Manual should be used in the following manner to insure a more complete and useful document:

1. Replace the old cover sheet with the new cover sheet.

2. Replace page ii and iii with the updated sheets.

3. Remove the old pages, numbers 6-18, and replace with the new pages numbers 6-12.

4. Insert the new abstracts at the back of the old document. (Note: The last page of the old document was OR-76-89, therefore, the next page should be OR-77-90, etc.).

OPERATION RESOURCE:

ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

UNDERGRADUATE STUDIES COMMITTEE

AMERICAN COUNCIL ON INDUSTRIAL

ARTS TEACHER EDUCATION

The A.C.I.A.T.E. is pleased to sponsor and support the further development of OPERATION RESOURCE. A special word of appreciation is extended to Undergraduate Studies Committee members who have made the realization of this publication possible. Current (1976-77) Committee members include:

Glenn E. Bettis, Committee Chairman, East Tennessee State University

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Douglas T. Pine, University of Northern Iowa

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R. Thomas Wright, Ball State University

Special thanks is also extended to all individuals who have made a contribution to OPERATION RESOURCE by submitting one or more abstracts. The true success of this document can be attributed directly to our colleagues in the field. The American Council on Industrial Arts Teacher Education solicits your continued support and utilization of OPERATION RESOURCE.

David L. Jelden

President, A.C.I.A.T.E.

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SECTION 3

ABSTRACTS

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Evaluation of Early Field Experience Program

Department / Division: Industrial Arts Department

Institution / Organization: California State College

City, State: California, Pennsylvania Zip Code: 15419

Director(s) of Activity: Dr. John H. Lucy Title: Professor

Date Initiated: September, 1973 Date Concluded: June, 1974

Sponsor / Funding Agent: Departmental (only)

Descriptors: Methods; Evaluation-Program; Professional courses; Evaluation-Student; Undergraduate programs

Purpose / Goals / Objectives of Activity:

During the 1973-74 school year, the writer developed and evaluated an early field experience program for under-graduates in industrial arts teacher education. This experimental program presented college sophomores with an opportunity to participate in industrial field tours, educational field trips to the urban area, college seminars and to become involved in a local school program while working under the direction of a supervising teacher.

Progress to Date:

In order to effectively manage the above program, a system of teacher guidelines and student worksheets were written and revised several times. In addition, based upon the findings of an evaluation of this effort, several modifications in the scheduling of student activities were undertaken. While both college students and supervising teachers were in agreement with the need for such a program prior to student teaching, various suggestions were evident in their recommendations. For example, these undergraduates felt that the use of college seminars should be de-emphasized while their supervising teachers desired a more continuous method for scheduling these students in their visitation to the teaching center. These visitations placed the industrial arts major under the direction of an inservice teacher on some eight to nine Fridays throughout the semester for the entire school day.

Progress to Date (continued):

Some of the activities undertaken by the college student within the teaching center included classroom visitations in all subjects in grades K-12, working as a laboratory assistant, grading examination papers, micro teaching, imitation teaching and assisting individual public school students as needed in the classroom. An evaluation systen has been utilized by the writer for rewarding a motivated undergraduate in any or all of the above activities.

*Evaluation phase only. Program is presently conducted on a regular academic-year basis.

Plans For the Future:

Based upon the success this program has received by the undergraduates, their supervising teachers and the industrial arts faculty at California State College, the early field experience program will remain an important phase of the initial methods offering during the sophomore year.

Project Publications:

Lucy, John H. "Early Field Experience Program at California State College," Pennsylvania Industrial Arts News, January 1976, p. 7.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Evaluation report - no cost, student and teacher guidelines - no cost.

Person to Contact John H. Lucy Office Phone 412-938-4086

Address Industrial Arts Department, California State College, California, Pennsylvania 15419

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Evaluation Report for Field Experience in the Undergraduate Course. IAR-481, Industrial Arts and the Elementary School (IA Majors), during the Spring Semester of 1975.

Department / Division: Industrial Arts Department

Institution / Organization: California State College

City, State: California, Pennsylvania Zip Code: 15419

Director(s) of Activity: Dr. John H. Lucy Title: Professor

Date Initiated: January, 1975 Date Concluded: June, 1975

Sponsor / Funding Agent: Departmental and California Area Schools, California, Pennsylvania

Descriptors: Elementary Education; Evaluation-Program; Undergraduate programs; Evaluation-Student; Methods

Purpose / Goals / Objectives of Activity:

During the spring semester of 1975, this writer designed and evaluated an experimental phase to the existing undergraduate program at California State College for training industrial arts consultants for grades K-6. This additional experience gave the college student an opportunity to team teach with an inservice teacher while utilizing industrial arts as a method for presenting other subjects within the elementary curriculum.

Progress to Date:

Guidelines for the undergraduate student and the elementary teacher were developed and discussed. Once the various roles and assignments were understood, a total of seven teams were able to plan and enact their units of correlated instruction. This four-week involvement in the California Area Schools permitted the completion of a minimum of one unit of instruction per team.

An evaluation of this effort revealed that a total of ten units were completed during the spring semester while providing instruction in reading, science, industrial arts and career education. It was also determined that out of the involved 165 public school students, 163 had enjoyed this experience in working with tools and materials. Additional data revealed a strong acceptance for this new program by the participating college students and inservice elementary teachers. Financially, these ten randomly-selected activities averaged 22.8¢ when computed on a cost/student/hour basis for

Progress to Date (continued):

expendable materials.

*Evaluation phase only. Program is presently conducted on a regular academic-year basis

Plans For the Future:

Based upon the success of this additional phase to the undergraduate course at California State College for preparing the industrial arts consultant for grades K-6, this effort will remain an important aspect of the coming semesters.

Project Publications:

Lucy, John H. "Evaluation Report for Field Experiences in the Undergraduate Course, IAR-481, Industrial Arts and the Elementary School (IA Majors), during the Spring Semester of 1975," Conference Proceedings, Industrial Arts Association of Pennsylvania, Camp Hill, Pennsylvania, 1975, (not published at this date).

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Evaluation Report, student and teacher guidelines - no cost.

Person to Contact John H. Lucy Office Phone 412-938-4086

Address Industrial Arts Department, California State College, California, Pennsylvania 15419.

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Industrial Arts Resource Units for K-6 Grades

Department / Division Department of Industry & Technology

Institution / Organization Northern Illinois University

City, State DeKalb, Illinois Zip Code 60115

Director(s) of Activity Dr. Harold G. Gilbert Title Professor

Date Initiated 1973 Date Concluded 1976

Sponsor / Funding Agent N.I.U. (Northern Illinois University)

Descriptors:

Mathematics Course Unit

Elementary Education

Purpose / Goals / Objectives of Activity:

Prepare and test Industrial Arts Resource kits for K-6 grades in slip casting, papermaking, and enamelling.

Progress to Date:

Resource units completed:

Leather Tooling
Leather Mass Production
Leather Die Cutting
Screen Printing

Progress to Date (continued):

Plans For the Future:

Continue to develop more kits.

Project Publications:

A written resource unit for each kit.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Written resource units

Person to Contact Dr. Harold G. Gilbert Office Phone (815)753-0386

Address Department of Industry and Technology, Northern Illinois Univ.

DeKalb, Illinois 60115

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Establishment of an Undergraduate Industrial Education Association

Department / Division: Industrial Education

Institution / Organization: Washington State University

City, State: Pullman, Washington Zip Code: 99164

Director(s) of Activity: Dr. M. Oaks Title: Coordinator

Date Initiated: September, 1976 Date Concluded: Ongoing

Sponsor / Funding Agent: Washington State University

Descriptors:

Higher Education
Clubs
Public Relations
Undergraduate Program
Innovative Programs

Purpose / Goals / Objectives of Activity:

1) To offer undergraduates a variety of professional, social and technical opportunities not typically offered through a traditional "Club".

2) To fully involve students as decision-makers in departmental decisions.

Progress to Date:

A comprehensive "Industrial Education Association" comprised of students and faculty was initiated summer, 1976. The organization is comprised of four major "divisions":

1) Social-Professional
2) Material
3) Manufacturing-Construction
4) Power-Automotive

The intent of each division is to (1) provide services to the public and students; (2) develop leadership abilities; (3) raise capital for charity and worthy causes. Students are encouraged to work in a different division each of their four year program.

Progress to Date (continued):

Typical opportunities are: (1) buying; (2) selling (3) management; (4) constructing; (5) manufacturing; (6) repairs; (7) organizing; (8) speaking; (9) travel; (10) presenting

Plans For the Future:

1) Expand the original four divisions to five.

2) Establish student scholarships and travel grants.

Project Publications:

N.A.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Constitution and organization materials

Person to Contact Dr. M. Oaks Office Phone (509)335-5375

Address Industrial Education, Washington State University
Pullman, Washington 99163

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity The Zero Period Class: A New Curriculum Approach in Industrial Arts

Department / Division Industrial Education

Institution / Organization Washington State University

City, State Pullman, WA Zip Code 99164

Director(s) of Activity Dr. M. Oaks Title Coordinator Industrial Educ.

Date Initiated 1974 Date Concluded Ongoing

Sponsor / Funding Agent Pullman Public Schools

Descriptors:

Motivation

Extra Curricular

Junior High School

General Laboratory

Individualized Instruction

Purpose / Goals / Objectives of Activity:

1. To provide students time to design and construct items of individual interest.
2. To initiate a high motivation class stressing exploration and creativity.
3. To provide younger students not enrolled in I.A. with laboratory experiences.

Progress to Date:

The innovative "Zero Period" concept was initiated in 1974. It is an open entry - open exit early morning class (7:30-8:30 a.m.) which provides students the opportunity of designing and constructing a variety of items in a general shop environment.

The program has grown dramatically over a two year period. Practicular interest is generaged with younger students who are able to acquire valuable skills and knowledge needed for the formal seventh and eighth grade industrial arts program.

Progress to Date (continued):

Plans For the Future:

The "Zero Period" idea is planned for several other school districts. An undergraduate internship program sponsored in conjunction with the Washington State University Industrial Education program is underway which will allow for further development of the "Zero Period" program.

Project Publications:

Presentation and brochure distributed at the Washington Industrial Arts State Conference, April, 1976.

"Your Public Schools," April, 1976, Washington State Superintendent of Public Instruction Publication.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Brochure is available which explains how to develop a "Zero Period Curriculum."

Person to Contact Steve Duncan Office Phone (509)564-1159

Address Industrial Education, Gladish Middle School

Pullman, WA 99163

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Development of a Pre Student-Teaching Industrial Arts Internship Program

Department / Division: Industrial Education

Institution / Organization: Washington State University

City, State: Pullman, WA Zip Code: 99163

Director(s) of Activity: Dr. M. Oaks Title: Coordinator Industrial Educ.

Date Initiated: 1975 Date Concluded: Ongoing

Sponsor / Funding Agent: Washington State University

Descriptors:

Higher Education

Curriculum Development

Competencies

Innovative Programs

Self Evaluation

Purpose / Goals / Objectives of Activity:

1. To provide preservice industrial arts students with teaching experience prior to student teaching.
2. To assist students in making decisions as to which grade levels they wish to teach.
3. To determine whether the prospective IA teacher is genuinely interested in and suited for teaching before 3-4 years of undergraduate work is undertaken.

Progress to Date:

The undergraduate prestudent teaching internship program has been expanded in scope to include summer school experience as well as the academic year. Students are unanimously in favor of the program citing increased confidence and skill acquisition as important attributes of the experience.

The internship was recently added to the industrial arts curriculum as a permanent offering after a two-year pilot study.

Progress to Date (continued):

Plans For the Future:

The program will be increased in numbers and both middle and secondary schools are planned for 1977-78.

Project Publications:

Washington Industrial Arts Conference Publication and Presentation

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Reproduced . article

Person to Contact Dr. M. Oaks. Office Phone (509)335-5375

Address Industrial Education, Washington State University

Pullman, WA 99164

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Interactive Computer Assisted Instruction on a Microprocessor

Department / Division Industrial Arts Department

Institution / Organization University of Northern Colorado

City, State Greeley, Colorado Zip Code 80639

Director(s) of Activity D. L. Jelden Title Professor

Date Initiated September 1, 1976 Date Concluded

Sponsor / Funding Agent Outreach Education-UMC Campus

Descriptors:

Higher Education

Curriculum Development

In-Service Education

Innovative Programs

Instructional Devices (Computer)

Purpose / Goals / Objectives of Activity:

To develop an interactive computer assisted instruction program on a micro-computer within the classroom to allow mastery of information in basic electronics for industrial arts teachers.

Progress to Date:

Construction and development of hardware is complete. Sample programs have been generated and are operational for interactive instruction within classroom environment. The program language is basic and has proven capable of handling programs in electricity. Fifty-two sample lessons are in rough state and are presently being put into the system manually, stored on floppy disk and available for future use. The system contains two terminals, two floppy disks and CPU W/42K capacity.

Progress to Date (continued):

Plans For the Future:

Expansion of this application to other areas with a management capability for record purposes is being considered. Total cost of all hardware for system is $7,500.00

Project Publications:

None to date--Orientation of proposal in AIAA Convention proceedings-1976. By Jelden.

Available Information:

Information is available upon written request: ☐ YES ☒ NO

If yes, type of information and cost: _____

_____

_____

Person to Contact D. L. Jelden Office Phone 351-2186

Address Industrial Arts Department, University of Northern Colorado

Greeley, Colorado 80639

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Industrial Arts Teacher Education Program Assessment

Department / Division: Industrial Arts

Institution / Organization: University of Alberta

City, State: Edmonton, Alberta, Canada Zip Code: T6G 2E1

Director(s) of Activity: Dr. C. J. Ross Title: Lecturer

Date Initiated: January, 1975 Date Concluded: August, 1976

Sponsor / Funding Agent: University of Alberta

Descriptors:

Competencies

Evaluation - Program

Undergraduate Programs

Research

Purpose / Goals / Objectives of Activity:

1. To identify the skill competencies needed to teach the Industrial Arts Curriculum in Alberta schools.

2. To determine the extent to which Alberta Industrial Arts teachers perceive the value of their various programs of teacher education as preparation to teach the Industrial Arts curriculum in Alberta.

Progress to Date:

206 Industrial Arts competencies were identified and validated.

Data was collected from 80% of all Alberta Industrial Arts teachers and has been analyzed.

Perceptions of the value of Industrial Arts teacher education programs originating in Canada and the USA were obtained. Also, decision making data was acquired which is being used to revise aspects of the Industrial Arts teacher education program offered at the University of Alberta.

Progress to Date (continued):

Plans For the Future:

Project Publications:

Ross, C. J. 'An Assessment of the Alberta Industrial Arts Teacher Education Program' Unpublished Doctoral Dissertation, University of Alberta, Edmonton, 1976.

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Full Thesis

Loose bound, 200 pp. $10 plus postage

Abstract: no charge

Person to Contact Dr. C. Ross Office Phone 432-5621

Address University of Alberta

Edmonton, Alberta, Canada

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Development of Home Maintenance and Repair Curriculum Guide for Industrial Arts Education.

Department / Division Industrial Education

Institution / Organization Southwest Missouri State University

City, State Springfield, Missouri **Zip Code** 65802

Director(s) of Activity Dr. Eugene G. Sherrell **Title** Professor

Date Initiated March, 1975 **Date Concluded** March, 1976

Sponsor / Funding Agent Research Coordinating Unit, Department of Education

Descriptors:

Curriculum Development

Senior High School

Females

Avocational

Purpose / Goals / Objectives of Activity:

To collect information for school districts offering classes or units of information relating to home maintenance and repair and to develop the information into a curriculum guide for Industrial Arts Education.

Progress to Date:

The project has been completed and a curriculum guide has beed developed and published as a Missouri State Curriculum Guide for Industrial Arts Education.

Progress to Date (continued):

Plans For the Future:

Currently presenting a proposal for EPDA funding to provide classes in five (5) State Universities of Missouri for industrial teachers to develop a course of study to be used to teach Home Maintenance and Repair in all the school systems of Missouri.

Project Publications:

Curriculum Guide - Industrial Arts Education; HOME MAINTENANCE AND REPAIR.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: _____

Curriculum Guide

Person to Contact Mr. B. Eugene Brightwell Office Phone 314-751-4460

Address Mo. Supervisor of Industrial Arts, Dept. of Elementary and Secondary Education, P. O. Box 480, Jefferson City, MO 65101

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity A Study of Work Values of Parents, Students, and Teachers in State of Maryland.

Department / Division Industrial Education

Institution / Organization University of Maryland

City, State College Park, MD **Zip Code** 20742

Director(s) of Activity Dr. Walter Mietus **Title** Assoc. Prof.

Date Initiated September, 1976 **Date Concluded** January, 1977

Sponsor / Funding Agent State Department of Education, Maryland

Descriptors:

Research

Attitudes

Motivation

Career Education

Purpose / Goals / Objectives of Activity:

A state wide study to determine the attitudes and differences between and among parents, students, and teachers, based on socio economic levels and seven work ethics. 1. Altruism societal, 2. Altruism employer, 3. Personal satisfaction, 4. Economic, 5. Status, 6. Self Development, 7. Avoidance behavior.

Progress to Date:

All data collected from target population and computer processed. Normative data established. Volume I or pilot study written and available for dissemination. Volume II now being written.

Progress to Date (continued):

Plans For the Future:

A statistical report showing the differences between each group and within each group is being generated. New meaningful dimensions for dealing with the study of work values (attitudes) in school will be provided.

Project Publications:

NAITTE

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Limited number of progress reports. Free.

Person to Contact Dr. Walter Mietus Office Phone 454-4264

Address Department of Industrial Education, College Park, MD 20742

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Computer Assisted Decision Making For Industrial Education Students

Department / Division Department of Industrial Education

Institution / Organization University of Maryland

City, State College Park, MD **Zip Code** 20742

Director(s) of Activity Walter Mietus **Title** Assoc. Prof.

Date Initiated 9/1/76 **Date Concluded** continuous

Sponsor / Funding Agent none

Descriptors:

Problem Solving

Educational Games

Undergraduate Programs

Simulation

Curricular Models

Purpose / Goals / Objectives of Activity:

The student will have experiences in:

1. Setting up decision making problems for computer programs.
2. Collect, compile and program concepts and subsumed variables.
3. Use the computer and interpret results.
4. Make objective decisions

Progress to Date:

Writer has used these materials in a course taught at the University of Maryland.

Progress to Date (continued):

Plans For the Future:

Introduce model into graduate programs.

Project Publications:

A.C.I.A.T.E. Futures Bulletin

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Limited Number, free

Person to Contact Walter S. Mietus Office Phone 454-4264

Address Department of Industrial Education, University of Maryland,

College Park, MD. 20742

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Exploratory/Prevocational Learning Experiences For The Handicapped

Department / Division Program of Vocational, Technical, and Industrial Arts Education.

Institution / Organization Florida State University, Building 218

City, State Tallahassee, Florida **Zip Code** 32306

Director(s) of Activity Dr. W.D. Wargo **Title** Assoc. Prof.

Date Initiated June, 1976 **Date Concluded** June, 1977

Sponsor / Funding Agent Division of Vocational, Technical, and Adult Education, FL Dept. of Education

Descriptors:

Exceptional Children

Curriculum Development

Career Education

Research

General Laboratory

Purpose / Goals / Objectives of Activity:

To provide orientation for working with the handicapped in industrial arts, prevocational, and career education.

Progress to Date:

Inservice workshop for prevocational and special education teachers have been held at Florida State University. A publication on "Exploratory/ Prevocational Learning Experiences for the Handicapped" has been produced.

Progress to Date (continued):

Plans For the Future:

Workshops and publication on "Prevocational Education for the Handicapped" are being planned for 1977-78.

Project Publications:

"Exploratory/Prevocational Learning Experiences for the Handicapped", 1976 Project #6-0208, Florida Department of Education, William D. Wargo, Project Director.

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: a 212 page spiral bound book, no cost.

Person to Contact Mr. Tom Swift Office Phone (904)488-7153

Address Consultant on Vocational Education for the Handicapped, FL Department of Education, Collins Building, Tallahassee, FL 32304

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity An Evaluation of the Industrial Arts Education and Technology Curriculum at Northwest Missouri State University

Department / Division Department of Industrial Arts Educ. and Technology

Institution / Organization Northwest Missouri State University

City, State Maryville, Missouri Zip Code 64468

Director(s) of Activity Dr. John C. Rhoades Title Assoc. Professor

Date Initiated May, 1975 Date Concluded February, 1976

Sponsor / Funding Agent Departmental Budget

Descriptors: Evaluation-program

Curriculum Development

Higher Education

Purpose / Goals / Objectives of Activity:

Purpose, Goals, Objectives of Activity- to collect data that will provide information relating to the curriculum of the Department of Industrial Arts Education and Technology and to obtain suggestions for its improvement.

Progress to Date:

A comprehensive questionnaire was constructed and mailed to each graduate of Northwest Missouri State University with a major in Industrial Arts Education and/or Technology for the years of 1965 to 1975. Basically, the questionnaire attempted to gather answers to the following questions:

1) Background information concerning the graduate.

2) To what extent the graduate felt the Department of Industrial Arts Education and Technology met its stated objectives.

3) To what extent the graduates felt the Department of Industrial Arts Education and Technology met its stated goals and purposes.

Progress to Date (continued):

4) How worthwhile were the courses in the Department of Industrial Arts Education and Technology.

5) What suggestions the graduates had for improvement of the curriculum.

6) What did the graduates consider to be the strengths and weaknesses of the curriculum.

7) How well does the graduate consider himself educated to meet his present position requirements.

The data collected from the graduates has been compiled and presented to the department for action.

Plans For the Future:

Another evaluation will be run each five years.

Project Publications:

Not published

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Complete study $10.00

Questionnaire $.50

Person to Contact. Dr. John C. Rhoades Office Phone (816)582-7141 EXT. 175

Address Department of Industrial Arts Education and Technology

Northwest Missouri State University, Maryville, Missouri 64468

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity The Effects of Student and /or Teacher Laterality Upon Junior High Industrial Arts Student Psychomotor Skill Development

Department / Division Faculty of Industrial Technology

Institution / Organization The Ohio State University

City, State Columbus, Ohio Zip Code 43210

Director(s) of Activity Lyle R. Schroeder Title Ph.D. Candid.

Date Initiated April, 1976 Date Concluded December, 1976

Sponsor / Funding Agent

Descriptors:

Junior High School
Manipulative (Psychomotor)
Demonstration
Instructional Materials
Arts and Crafts

Purpose / Goals / Objectives of Activity:

The purpose of this study was to gather data to ascertain if the laterality of the industrial arts students and/or teacher had any effect on the teaching and/or learning of selected psychomotor skills.

Progress to Date:

The overall findings of the study indicated that the laterality of the student and/or teacher on the teaching and/or learning of how to make the double buttonhole stitch with leather lacing did approach a .10 level of significance on several of the variables that were tested. However, none of these differences were statistically significant at the pre-established .05 level of acceptance. Therefore, for this study, it can be stated that:

1) The left-handed junior high industrial arts student achieved as well with either right or left-handed instructor presentations.
2) The right-handed junior high industrial arts student achieved as well with either right or left-handed instructor presentations.

Progress to Date (continued):

3) It cannot be stated that the left-handed junior high industrial arts student is handicapped in the learning of psychomotor skills by observing right-handed demonstrations of those skills.

4) It cannot be stated that the right-handed junior high industrial arts student is handicapped in the learning of psychomotor skills by observing left-handed demonstrations of those skills.

Since none of the statistical tests provided results which were significant at the .05 level of significance, the author recommends that industrial arts teachers need not be unduly concerned whether they or their students are right or left-handed, insofar as they demonstrate tasks which are similar to the kind utilized in this study

Plans For the Future:

Project Publications:

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: University Microfilms

Ann Arbor, Michigan

Person to Contact _____ Office Phone _____

Address _____

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Cooperative Education (Academic &/or Career Related Work Experience)

Department / Division

Institution / Organization Waldorf College

City, State Forest City, IA Zip Code 50436

Director(s) of Activity David C. Rasmussen Title Coordinator

Date Initiated July 1, 1976 Date Concluded

Sponsor / Funding Agent Title IV D - U.S. Office OF Education

Descriptors:

Career Education
Junior College
Counseling (Guidance)
Innovative Programs
Program Planning

Purpose / Goals / Objectives of Activity:

1) To explore interest areas
2) To develop & improve skills
3) To increase motivation
4) To provide personal growth
5) Provide orientation, understanding & appreciation of world of work as a means of human service.

Progress to Date:

1) Enrolled approximately 30 students.

2) Developed handbook & necessary objectives, procedures, evaluation techniques, etc.

Progress to Date (continued):

Plans For the Future:

I) Integrate with guidance department to form a career planning service

2) Initiate a placement service for graduates

Project Publications:

Brochure
Handbook

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Handbook, Various forms, etc.

(No Cost)

Person to Contact David C. Rasmussen Office Phone (515)582-2450

Address Waldorf College

Forest City, IA 50436

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Mini-course Elective Program: Development and Implementation

Department / Division: Industrial Arts and Technology

Institution / Organization: State University College at Oswego

City, State: Oswego, New York Zip Code: 13126

Director(s) of Activity: Dr. John R. Boronkay Title: Asst. Prof.

Date Initiated: March, 1975 Date Concluded: May, 1975

Sponsor / Funding Agent: Department of Industrial Arts and Technology

Descriptors:

Micro-Teaching
Innovative Programs
Professional Courses
Junior High School
Competencies

Purpose / Goals / Objectives of Activity:

The two purposes of this activity were: (1) to provide students enrolled in the methods of teaching industrial arts course with a field related, pre-student teaching, micro-teaching activity, and (2) to provide technology related elective courses that would be fun and activity oriented to middle school age youngsters. The objective was to develop competence in planning, developing and implementing an eight to ten session instructional program.

Progress to Date:

Fifty-five methods students divided into eighteen groups and offered the following elective mini-courses in two public schools of the City School District of Oswego: (1) architectural drafting, (2) woodcarving, (3) leathercraft, two groups, (4) photography, two groups, (5) rockets, (6) bike maintenance, (7) screen printing, two groups, (8) flight, (9) enameling, (10) home maintenance, (11) yearbook publications, (12) letterpress, (13) small engines, (14) model cars, and (15) graphic arts. The methods students developed complete program plans, directed activities, taught lessons, and evaluated peer presentations. Discussion sessions were held to share problems, adjustments, and evaluations. The public school students had a fun, interesting, innovative and technology oriented short term educational experience.

Progress to Date (continued):

Plans For the Future:

Dr. Boronkay has returned from sabbatical and will direct the development and implementation of another series of mini-courses during the Spring 1977 at the Millard Hawk Junior High School, Central Square, New York 13036.

Project Publications:

Each methods group developed a Mini-Course Package that included title, description, objectives, activities, instructional materials, support materials (tools, equipment, and supplies), lesson plans, implementation plan, peer evaluations, and program evaluations. Program evaluations were made after course consummation and were based on observation.

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Dr. Boronkay will consider invitations to speak about the program.

Person to Contact Dr. J. R. Boronkay Office Phone (315)-341-4074

Address Department of Industrial Arts and Technology
State University College at Oswego
Oswego, New York 13126

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Communications Technology Curriculum Guide for the State of Virginia

Department / Division Industrial Arts Education

Institution / Organization Virginia Polytechnic Institute and State University

City, State Blacksburg, Virginia Zip Code 24061

Director(s) of Activity Dr. William E. Dugger Title Program Area Leader, I.A.

Date Initiated July, 1976 Date Concluded June, 1977

Sponsor / Funding Agent Virginia Department of Education Industrial Arts Service

Descriptors:

Printing

Graphic Communication

Drafting/Drawing

Photography

Electricity/Electronics

Purpose / Goals / Objectives of Activity:

To develop a curriculum guide for teaching Communications Technology in the State of Virginia for the ninth and tenth grade level.

Progress to Date:

The Course Objectives and Description, as well as the Course Outline have been completed. The following sections of the Curriculum Guide have also been completed: Introduction, Drafting-Technical Communications, Communications Enterprise, The Industrial Arts Student Association. The following sections will be finished by the end of January, 1977: Telecommuncations, Visual Communications and Continuous Tone Photography.

Progress to Date (continued):

Plans For the Future:

A state advisory committee composed of eight teachers with background in communications will meet to evaluate and offer input to the guide.

A series of workshops are planned for the summer of 1977 to implement the guide across the state.

Project Publications:

The guide is expected to be published and ready for distribution by June 30, 1977.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: A copy of the curriculum guide, no cost.

Person to Contact Thomas Hughes, Jr. Office Phone (804) 786-2642

Address State Department of Education, Ninth Street Office Building, Richmond, Virginia

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Energy Conservation Resources for Education (ENCORE)

Department / Division Industrial Education

Institution / Organization Texas A&M University

City, State College Station, Texas Zip Code 77843

Director(s) of Activity Daniel L. Householder Title Assoc. Prof.

Date Initiated February 1, 1976 Date Concluded August 31, 1977

Sponsor / Funding Agent Center for Energy and Mineral Resources, TAMU

Descriptors:

Junior High School

Curriculum Development (Revision)

Instructional Materials (Media)

Science

Environmental Studies

Purpose / Goals / Objectives of Activity:

Development and field-testing of instructional materials in energy conservation for junior high school students.

Progress to Date:

1) Conduct of workshop in summer, 1976 involving 12 science teachers and six industrial arts teachers,

2) Development of a series of 19 instructional modules dealing with various aspects of energy conservation, and

3) Field-testing and review of the instructional materials in public schools in Texas.

Progress to Date (continued):

Plans For the Future:

1) Continuing field-testing through 1976-77 school year,

2) Conducting additional workshops for public school teachers, and

3) Development of instructional materials for other age groups.

Project Publications:

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Descriptions of instructioanl materials are available for distribution at this time; following field-testing, revised materials may be made available.

Person to Contact Daniel L. Householder Office Phone (713) 845-3016

Address Department of Industrial Education, Texas A&M University, College Station, Texas 77843

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Development of a Competency Based Program to Prepare Industrial Educators & Special Educators to Work Together in The Education of The Handicapped.

Department / Division Technology

Institution / Organization Central Connecticut State College

City, State New Britain, Connecticut Zip Code 06050

Director(s) of Activity Michael J. Williams Title Asst. Prof.

Date Initiated September, 1975 Date Concluded June, 1978

Sponsor / Funding Agent

Descriptors:

Curriculum Development (Revision)
Exceptional Children
Graduate Programs
Undergraduate Programs
Competency Based

Purpose / Goals / Objectives of Activity:

The purpose of this project is to develop a competency-based teacher education program designed to prepare selected individuals already trained or presently being trained in industrial arts, vocational education and career education with the skills essential for working with students with special needs, and also prepare special educators and career education coordinators to work more closely with vocational and industrial arts educators.

Progress to Date: Needs Analysis was conducted in the State of Connecticut in 1976, to determine:

1) If the handicapped are being served in career, industrial arts and vocational-technical education programs.

2) The training that the instructors in these areas have had to work with the handicapped.

3) If special educators feel a need to include some experiences in industrial arts and vocational-technical education in their undergraduate preparation.

Progress to Date (continued):

Plans For the Future:

1) Design instructional strategies to facilitate learner achievement of the identified objectives.

2) Formulate assessment procedures to evaluate student achievement of the identified objectives.

3) Submit the material developed above to the Interdisciplinary Grant Advisory Committee for examination, evaluation and recommendations.

Project Publications:

Williams, M., and Dawson, D. "A Summary Report of a Needs Analysis Survey for Vocational and Career Education for the Handicapped in Connecticut" - a report distributed regionally and nationally to interested parties.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: _____

Needs Analysis Survey Results - Cost: Exchange of information

_____

Person to Contact Michael J. Williams Office Phone (203) 827-7393

Address Central Connecticut State College, 1615 Stanley Street,

New Britain, Connecticut 06050

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Remote Computerized Phototypesetting with Automated Turnaround From 8 to 6 Level TTS Codes.

Department / Division Graphic Arts - Industrial Education Department

Institution / Organization Western Michigan University

City, State Kalamazoo, MI Zip Code 49008

Director(s) of Activity Dr. Arvon D. Byle Title Assoc. Prof.

Date Initiated February, 1976 Date Concluded

Sponsor / Funding Agent

Descriptors:

Automation - Computer

Communications system-printing

Higher Education

Individualized Instruction

Senior High School

Purpose / Goals / Objectives of Activity:

Provides students with experiences in utilizing a PDP-10 computer installation to set photocomposed type by remote teletype terminals. This activity surpasses using a normal stand-alone keyboard and minicomputer on a photocomposer by allowing word division to occur from a 20,000 word dictionary instead of logic rules. Of further importance to the students, is the contemporary and futuristic nature of such a procedure. The use of a general purpose computer, coupled to an educational experience, as well as providing photo type set images is representative of future trends within the graphic industry.

Progress to Date:

Students in printing or journalism departments are able to complete laboratory experiences required for their class by using any standard ASR 33 Teletype input on the W.M.U. campus. This flexibility is fostered through the use of self-instructional sheets and the general adaptability of the PDP-10 University computer. Entire process is currently operational. Computerized typesetting within the graphic arts laboratory includes the following: Photon Pacesetter using Phase II program, ASR 33 Teletypes, Friden LCC six-level tape perforators, and a Harris 1100 Video Editor.

Progress to Date (continued):

Plans For the Future:

Expand typesetting capabilities.

Expand editorial functions to include journalism department.

Project Publications:

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Verbal

Person to Contact Arvon D. Byle Office Phone (616)383-1900

Address 1057 Engineering and Technology Building

Western Michigan University, Kalamazoo, MI 49008

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN
INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Curriculum Development in Alternate and Solar Derived Energy Systems

Department / Division Industrial Education and Technology Department

Institution / Organization Montclair State College

City, State Upper Montclair, N.J. Zip Code 07043

Director(s) of Activity Dr. M. Greenwald Title Asst. Prof.

Date Initiated _____ Date Concluded _____

Sponsor / Funding Agent None

Descriptors:

Lecture

Undergraduate Programs

Course of Study

Laboratory Based

Solar Power

Purpose / Goals / Objectives of Activity:

To supplement and upgrade existing course offerings in the area of power generation and conversion techniques, in view of the changing energy prespective.

Progress to Date:

Three courses have been instituted and are currently being taught. They are:

1) Alternate Energy Conversion Systems.

2) Wind Energy Conversion Systems.

3) Solar Derived Energy Conversion Systems

Progress to Date (continued):

Plans For the Future:

Further course revisions and additions due to changing technologies. Construction of specific facilities for instructional and demonstration purposes.

Project Publications:

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Course outlines and bibliography. No cost.

Person to Contact Dr. M. Greenwald Office Phone 201-893-4163

Address R. D. #1, Thompson Ridge, N.Y.. 10985

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Curriculum Development in Two-year and Four-year Drafting/Design Programs

Department / Division: Technology

Institution / Organization: Fairmont State College

City, State: Fairmont, West Virginia Zip Code: 26554

Director(s) of Activity: Dr. Yuan H. Liu Title: Asst. Prof.

Date Initiated: December 3, 1975 Date Concluded: Continuing

Sponsor / Funding Agent: Division of Technology, Fairmont State College

Descriptors:

Drafting/Drawing
Curriculum Development (Revision)
Architecture
Advisory Committees
Professional Courses

Purpose / Goals / Objectives of Activity:

The objectives of the activity are triplex. They are:

1. To update our two-year and four-year drafting/design programs so that quality and relevance are assured;
2. To examine our drafting/design labs and to purchase some equipment needed for both mechanical and architectural drafting/design courses;
3. To select good textbooks and references for each drafting/design course.

Progress to Date:

Seven main tasks have been accomplished. They are:

1. Organized a Drafting/Design Advisory Committee to evaluate our two-year and four-year drafting/design programs;
2. Developed an evaluation form and a personal data sheet;
3. Sent to each Advisory Committee member some pertinent materials;
4. Brought textbook(s) used for each drafting/design course to Advisory Committee members for evaluation and got acquainted with them;
5. Read and compiled all the recommendations provided by the Committee members;
6. Planned, prepared, and held the first Committee meeting; and
7. Based upon the suggestions provided by the committee members, the following tasks have been accomplished:

Progress to Date (continued):

A. Developed two-year and four-year programs with mechanical and architectural drafting/design options;
B. Purchased some equipment for the drafting/design labs;
C. Changed some textbooks used for drafting/design courses; and
D. Informed our graduating seniors as to job markets in West Virginia and other states.

Plans For the Future:

Three primary plans for the future are:

1. To keep all the Committee members informed as to what has been changed including our drafting/design programs, equipment, and textbooks;
2. To hold a Committee meeting to discuss pertinent matters at least once a year; and
3. To get our drafting/design programs certified by the American Institute for Design and Drafting (A national professional organization).

Project Publications:

None by the present time.

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: . Evaluation form; and

2. Our two-year and four-year programs with mechanical and architectural drafting/design options. Total cost $2.00.

Person to Contact Dr. Yuan H. Liu Office Phone 304/367-4156

Address Division of Technology, Fairmont State College, Fairmont, W.VA. 26554

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Curriculum Development: Occupational Orientation; "Careers and You"

Department / Division: Industrial Arts Department/ Voc./Tech. Division

Institution / Organization: Virginia Polytechnic Institute & State University

City, State: Blacksburg, VA Zip Code: 24061

Director(s) of Activity: Dr. Ralph Ressler Title: Assoc. Prof.

Date Initiated: July, 1974 Date Concluded: June, 1977

Sponsor / Funding Agent: State Department of Up. Ed. Vocational Division

Descriptors:

Junior High School
Attitude (Affective)
Laboratory Based
Course of Study
Cluster Approach

Purpose / Goals / Objectives of Activity:

To provide pre-exploratory students with a perceptual framework with which to select exploratory experiences at the Jr. High/Middle School level.

Progress to Date:

Careers and You, a 90/180 day course has been concedtualized and field tested with 2,500 6, 7, 8 and 9th grade students across Virginia. A teacher's guide and student workbook has been produced. Numerous workshops have been held, and in-service experiences designed and tested. All activities have been evaluated with a product evaluation to be completed shortly, and software is being commercially produced. A concurrent study of exploratory programs has been conducted

Progress to Date (continued):

Plans For the Future:

Articulate careers and you in exploratory courses.
Longitudinal evaluative plan.

Project Publications:

Teacher's Guide: A World Of Choice-Careers and You
Virginia Polytechnic Institute and State University, 1976
Student workbook: A World Of Choice-Careers and You
Virginia Polytechnic Institute and State University, 1976
Rationale and Structure: A World of Choice - Careers and You
Virginia Polytechnic Institute and State University. 1975

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Samples of Guide and Workbook; Rationale; Brochures - no cost.

Person to Contact Ralph Ressler Office Phone 703/951-5444

Address 306 Lane Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: PSI Approach in Descriptive Geometry

Department / Division: Industrial Education and Technology Department

Institution / Organization: Central Michigan University

City, State: Mt. Pleasant, Michigan Zip Code: 48859

Director(s) of Activity: Dr. John G. Nee Title: Assoc. Prof.

Date Initiated: Winter, 1976 Date Concluded:

Sponsor / Funding Agent: NSF

Descriptors:

Engineering

Behavioral Objectives

Course of Study

Curriculum Development

Curriculum Models

Purpose / Goals / Objectives of Activity:

The purpose for developing a Personalized System of Instruction course in the technical area of descriptive geometry was basically to organize the course so a student could enter and exit the regularly scheduled course early without penalty. The PSI approach required that the student obtain at least a 90 percent correct unit test score before progressing to the next unit. The PSI course required the development of a complete learning package consisting of performance objectives, learning activities, and criterion tests. A tutoring system was also included as a major feature of the course.

Progress to Date:

A pilot study was implemented in 1972 with revision occurring during 1975. The revised PSI materials were used in a descriptive geometry class at Central Michigan University during Winter Semester, 1976.

Progress to Date (continued):

Plans For the Future:

Additional plans are being made to finalize the PSI materials during summer, 1977. Other areas tentatively being studies for PSI courses include engineering graphics, and machine graphics.

Project Publications:

"The PSI Approach to Vocational Education" in Industrial Education, Paul Cuneo, Editor. February 1976, Volume 65, Number 2, pp. 36-38.

Available Information:

Information is available upon written request: [X] YES [ ] NO

If yes, type of information and cost: Course policy/no cost

Person to Contact Dr. John G. Nee Office Phone (517) 774-3996

Address 202 Wightman Hall, Central Michigan University,

Mt. Pleasant, Michigan 48859

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity Development of A Four Year Bachelor Of Education Program Between The University of Manitoba and Red River Community College In Manitoba, Canada

Department / Division Curriculum: Mathematics and Natural Science

Institution / Organization University of Manitoba (Fac. of Ed.)

City, State Winnipeg, Manitoba, Canada Zip Code R3T 2N2

Director(s) of Activity Dr. Lowell Anderson
Mr. Luther Judt Title Coordinator

Date Initiated September, 1976 Date Concluded in progress

Sponsor / Funding Agent staff funding (Provincial Government)

Descriptors:

Junior College

Curriculum Models

Administration

Higher Education

Certification

Purpose / Goals / Objectives of Activity:

The primary purpose has been to develop in Manitoba a four year degree in Industrial Arts and Business Education for the more than 1200 persons teaching in the Province. An existing program meeting two year certification was available at Red River Community College but no program or staff was available at the University of Manitoba.

The concept is unique in conceptualization: the program is not a transfer but an integrated model.

Progress to Date:

The program model has been developed and approved by the two institutions and the Provincial Department of Education. Funding for staff positions is anticipated during early 1977, with implementation in fall of 1977.

The program is designed around the four technology areas found in the literature in industrial arts. Seven courses are being implemented at the University of Manitoba. Included are courses in Industrial Arts in Technology, Industrial Relations and currently a graduate course, interdisciplinary, on technology supported through staff in industrial arts, science, environmental biology, mathematics, outdoor education, home economics and educational technology. Students and staff from the disciplines in the Curriculum area shall meet in this seminar.

Progress to Date (continued):

Plans For the Future:

A graduate program with options in the Faculty of Education shall be developed. Included will be areas in administration, counseling, research and foundations.

Project Publications:

"Industrial Arts and Business Education Program Modifications and Articulation for the Bachelor of Education and Certification." The University of Manitoba, Faculty of Education: Winnipeg, 1977 (Unpublished document)

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: no cost

Person to Contact Dr. Lowell Anderson Office Phone 474-9073

Address Rm. 408, Faculty of Education
University of Manitoba
Winnipeg, Canada

OPERATION RESOURCE:
ABSTRACTS OF CURRENT CURRICULUM DEVELOPMENT ACTIVITIES IN INDUSTRIAL ARTS TEACHER EDUCATION

Title of Activity: Development of an Interstate Undergraduate Consortium in Industrial Education

Department / Division: Departments of Industrial Education

Institution / Organization: University of Idaho; Washington State University

City, State: Moscow, ID; Pullman, WA — Zip Code: 83843; 99164

Director(s) of Activity: Dr. Biggam; Dr. Oaks — Title: Head; Coordinator

Date Initiated: 1974 — Date Concluded:

Sponsor / Funding Agent: University of Idaho and Washington State Univ.

Descriptors:

Undergraduate Programs
Higher Education
Program Planning
Innovative Programs
Curriculum Development

Purpose / Goals / Objectives of Activity:

1) To develop interstate cooperative programs
2) To provide an in-depth program with no costly duplication of facilities, equipment, instruction, etc.
3) To offer a broader curriculum base than possible with separate departments

Progress to Date:

Consortia was started in 1974. Currently University of Idaho students travel to W.S.U. for Power and Automotives. Conversely, W.S.U. students travel the seven miles to the U. of I. campus for Electricity-Electronics.

Progress to Date (continued):

Plans For the Future:

Expansion of the interstate consortium is planned to include further technical and professional offerings.

Project Publications:

N.A.

Available Information:

Information is available upon written request: [x] YES [ ] NO

If yes, type of information and cost: Reprinted materials

Person to Contact Dr. Merrill M. Oaks Office Phone (509) 335-5375

Address Industrial Education- Washington State University

Pullman, WA 99164